

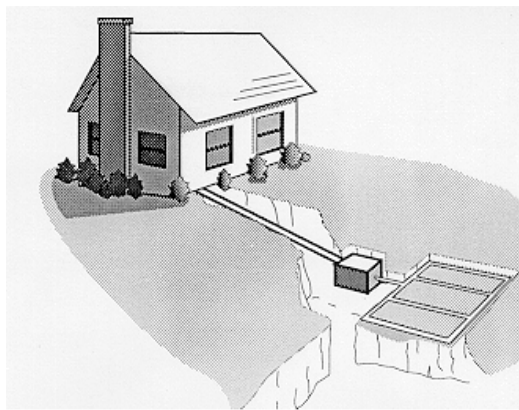


## Funding Decentralized Wastewater Systems Using the Clean Water State Revolving Fund

The Clean Water State Revolving Fund is a low interest or no interest source of funding for the installation or repair and upgrading of "decentralized" wastewater systems in small-town, rural, and suburban areas. "Decentralized" wastewater systems include: onsite disposal systems such as septic systems with drainfields, alternative systems such as mounds and cluster systems. Cluster systems are designed to treat the wastewater from two or more dwellings or businesses, but not entire communities. The 1990 U. S. Government Census indicates that 25 million households use decentralized systems. In 1995, according to the Census Bureau, two-and-one-half million systems malfunctioned. This estimate is probably conservative. It is anticipated that as our communities continue to expand into suburban and rural areas, that the number of decentralized systems and associated system failures will increase.

### *Background*

In the 1970s and 1980s, large federal investments in the construction of wastewater facilities focused primarily on large, centralized collection and treatment systems. This effort did not recognize the benefits of properly managed decentralized wastewater systems in achieving the goals of the Clean Water and Safe Drinking Water Acts.



Source: National Small Flows Clearinghouse

### *Benefits of Properly-Managed Decentralized Treatment Systems*

Properly-managed decentralized wastewater systems are viable, long-term alternatives to centralized wastewater facilities, particularly in small and rural communities.

#### **Why install a decentralized system?**

##### **Because they**

- ▶ **protect public health and the environment.**  
Properly managed decentralized systems can provide the treatment necessary to protect public health and the environment. They can be sited, sized, designed, installed and operated to meet all federal, state, and local water quality requirements.
- ▶ **are appropriate for low density communities.**  
Decentralized systems are usually the most appropriate technology and most cost-effective option for rural areas and much of the urban outskirts.
- ▶ **are appropriate for varying site conditions.**  
Decentralized systems can be designed for a variety of site and soil conditions, including shallow water tables, bedrock and small lot sizes.

### *Problems Associated With Decentralized Wastewater Systems*

In many existing communities, the initial decision to install a particular system (i.e., to hookup to a centralized system or to use a decentralized system) is primarily made in the private sector by the developer of a property, based on affordability, profitability, and availability of a central sewer system. In small communities with limited or no centralized system, developers typically choose the most common, affordable and easily installed onsite systems. Once installed, these conventional onsite systems are often not inspected or maintained except in emergency situations when

wastewater backs up into homes and backyards. Malfunctioning systems can cause contamination of groundwater and nearby surface waters. Many state and local regulatory codes have not been updated to discourage or eliminate inadequate practices and/or allow the use of new technologies with demonstrated performance. As a result, small communities may incur significant economic burdens where alternative wastewater systems are not considered or permitted.

Nationwide data show that conventional onsite system failures can be attributed to the following:

- ▶ improper siting and/or site evaluation
- ▶ improper system selection and design
- ▶ poor installation practices
- ▶ insufficient operation and maintenance

### ***Financing Decentralized Systems . . . The Clean Water State Revolving Fund***

The Clean Water State Revolving Fund (CWSRF) programs in each state and Puerto Rico operate like banks. Federal and state contributions are used to capitalize or set up the programs. These assets, in turn, are used to make *low or no-interest loans* for important water quality projects. Funds are then repaid to the CWSRFs over terms as long as twenty years. Repaid funds are recycled to fund other water quality projects. These CWSRF resources can help supplement the limited financial resources currently available for decentralized treatment systems. Projects that may be eligible for CWSRF funding include

1. New system installation (single and clustered systems) to correct an existing nonpoint source problem
2. Replacement, upgrade, or modification of inadequate or failing systems
3. Costs associated with the establishment of a centralized management entity\* (permitting fees, legal fees, etc.)
4. Capital associated with centralized management programs (e.g., trucks, storage buildings, spare parts, etc.)

\* We encourage the establishment or designation of a management entity for all decentralized projects. Acceptable management entities include cities and counties, special governmental units (sanitary districts, county service districts, etc.), public or private utilities, private corporations, and nonprofit organizations.

### ***Capacity of the CWSRF***

Nationally, the CWSRF has in excess of \$27 billion in assets and has issued \$23 billion in loans since 1988. The CWSRF currently is funding nearly \$3 billion worth of water quality projects annually. Clearly, the CWSRF can be a powerful financial resource for funding decentralized systems projects.

### ***Who May Qualify***

The Clean Water Act (CWA) of 1987 authorized the CWSRF to fund point source (§212), nonpoint source (§319), and estuary (§320) projects. Decentralized system projects that are solutions to nonpoint source problems may be eligible as a §319 or §320 project. Included in a long list of eligible CWSRF loan recipients for NPS and estuary projects are community groups, individuals, conservation districts, and nonprofit organizations. Since the program is managed by the states, project funding varies according to the priorities, policies, and laws within each state. Eligible applicants also vary by state.

### ***Getting a Project Funded***

Given that each state administers its own CWSRF program differently, your first step in seeking a CWSRF loan is to contact your state CWSRF representative. The list of CWSRF state representatives can be found on our website ([www.epa.gov/owm](http://www.epa.gov/owm)). Here are some suggested questions to ask your representative:

1. Has the State committed to funding decentralized systems in its CWSRF Intended Use Plan (IUP)?
2. If not, what can I do to help get these systems listed on the IUP?
3. Can an individual or private entity receive a CWSRF loan for an decentralized system?
4. If not, can I receive a CWSRF loan through my county?

Your CWSRF state representative will be able to guide you through the proper channels. In addition, you can refer to the Ohio case study under the “Success Stories” section to obtain further details on a popular approach to implementing a CWSRF/decentralized systems state program.

### ***Sources of Loan Repayment***

Each state must approve a source of loan repayment as part of the application process. Though finding a source of repayment may prove challenging, it does not have to be burdensome. Many users of the CWSRF have demonstrated a high level of creativity in developing

sources of repayment. The source of repayment need not come from the project itself.

Some potential repayment sources include

- ◆ property owner's ability to pay (determined during loan application)
- ◆ fees paid by developers
- ◆ recreational fees (fishing licenses, entrance fees)
- ◆ dedicated portions of local, county, or state taxes or fees
- ◆ donations or dues made to nonprofit groups
- ◆ stormwater management fees
- ◆ wastewater user charges

### *Success Stories*

In August 1997, the **Ohio EPA** and the **Mahoning County General Health District** entered into an agreement to create a linked deposit program to make low-interest loans available to individual homeowners in need of upgrading or replacing their home sewage disposal systems.

The process for obtaining a CWSRF loan is as follows:

1. The homeowner obtains a permit, which contains specifications on the proper installations, operation, and maintenance of the onsite system, from the county.
2. The homeowner is then issued a certificate which he or she can take to any bank that participates in the Linked Deposit Program.
3. The lending institution, using its own criteria, decides whether or not to offer the applicant a loan and at what interest rate and term.
4. The lending institution then notifies the Ohio EPA. The Agency then deposits the loan amount in the institution at a reduced interest rate.
5. Savings from the reduced interest rate are then passed on to the loan applicant.

Thus far, there have been 10 loans made to individuals totaling \$53,335. Over the next three years, Ohio's EPA Water Pollution Control Loan Fund will make \$1,425,000 available for use in this program. A similar program is being launched in **Cuyahoga County, Ohio** with \$1,950,000 earmarked for the first three years of the program.

In June 1995, the **Maine Municipal Bond Bank (MMBB)** and the **Maine State Housing Authority (MSHA)** entered

into a Memorandum of Understanding (MOU) to make low interest loans to finance septic systems for owner-occupied, single-family residences through the MSHA loan programs. The funds are used for the rehabilitation or replacement of septic systems. The interest rate is set at 1% with a maximum term of 20 years. The MSHA remits to the MMBB on a monthly basis any repayments for loans received during the prior month, which are put back in the CWSRF. Through November 1998, 294 loans have been made to individuals totaling \$1,277,152.

In 1994, **Pennsylvania** instituted a program to fund on-lot sewage disposal systems for the individual homeowner using their CWSRF. The Pennsylvania Infrastructure Investment Authority, the Pennsylvania Housing Finance Agency, and the Pennsylvania Department of Environmental Protection collaborated on the development of this special funding program, which allows a homeowner to borrow up to \$25,000 at an interest rate of 1% per annum to fund the rehabilitation, improvement, repair, or replacement of an existing on-site treatment system. These loans are processed through participating local lending institutions. To date, this program has provided loans totaling \$1.8 million to 230 property owners across the state.

In 1995, **Minnesota** created several sub-programs within its CWSRF to address nonpoint source pollution. Once such program is the Tourism Loan Program, administered through the Department of Trade and Economic Development, which loans CWSRF funds to private owners of small lake resorts for replacement or upgrade of onsite treatment systems. The loans are made in participation with a local bank, with the state financing 50% of the costs at 2% interest and the bank financing the remaining 50% at a market rate. The program has lent \$368,401 for 28 projects. The Department also administered the Small Cities Loan Program, which provided CWSRF loans at 0% to small, unsewered communities to upgrade or replace all failing onsite systems. In 1997, the program lent \$1.2 million to six communities. The Small Cities program has since been replaced by other funding mechanisms for small, unsewered areas.

### *Challenges Ahead*

The EPA encourages states to open their CWSRFs to the widest variety of water quality projects while still addressing their highest priority projects. Those

interested in implementing or upgrading an decentralized treatment system should seek out their CWSRF program, learn how their state program works, and participate in the annual process that determines which projects are funded.

For more information about the Clean Water State Revolving Fund, or for a program representative in your state, contact:

The Clean Water State Revolving Fund Branch  
U. S. Environmental Protection Agency  
401 M Street, SW (Mailcode 4202)  
Washington, DC 20460  
Phone: (202) 260-7359 Fax: (202) 260-1827  
internet: [www.epa.gov/owm](http://www.epa.gov/owm)



### ***EPA 319 Grants***

Section 319 of the Clean Water Act provides the statutory authority for EPA's Nonpoint Source Program. This program provides funds to states to restore waters adversely affected by nonpoint source pollution, and to protect waters endangered by such pollution. Most states have nonpoint source management plans that allow for the use of section 319 funds for decentralized wastewater system projects. The program has provided money to small communities and state agencies to construct decentralized wastewater systems in areas where these systems are more cost effective than centralized systems. Nonpoint Source Program funds have also been used to repair decentralized systems where such systems are common. Finally, these funds have been and will continue to be used for decentralized system technology demonstration projects.

### ***USDA Rural Utilities Service (RUS)***

Water and Waste Disposal Loans and Grants are available to develop water and waste disposal (including solid waste disposal and storm drainage) systems in rural areas and towns with a population not in excess of 10,000. The

funds are available to public entities such as municipalities, counties, special-purpose districts, Indian tribes, and nonprofit organizations. Grant funds are available to reduce water and waste disposal costs to a reasonable level for rural users. Grants may be made for up to 75 percent of eligible project costs in some cases. RUS also guarantees water and waste disposal loans made by banks and other eligible lenders. The facilities financed must be owned and controlled by the borrower/grantee. Financed decentralized systems would have to be owned and managed by the RUS borrower/grantee.

The programs are administered by USDA Rural Development offices located throughout the country. Additional information including local contacts may be found by visiting their web page: <http://www.usda.gov/rus/water>.

### ***HUD Community Development Block Grant***

The state administered Community Development Block Grant program (State CDBG) provides annual grants to 48 states and Puerto Rico. The states and Puerto Rico in turn, use the funds to award grants for community development purposes to smaller cities and counties. The states of Hawaii and New York have not chosen to administer the program. As a result, in those two states HUD directly administers the awarding of CDBG grants to smaller cities and counties.

CDBG grants can be used for numerous activities, including rehabilitation of residential and non-residential structures, construction of public facilities, and improvements to water and sewer facilities. For more information, visit their web site at <http://www.hud.gov/cpd/cdbg.html>.

### ***Non-Federal Assistance***

In addition to funding available from the federal government, several states have created infrastructure funds, which can fund the development of local onsite infrastructure. State-funded programs supporting decentralized systems are ongoing in several states including Massachusetts, North Carolina, Pennsylvania, and Virginia.